

## ABSTRACT

An object of the present invention is to provide an option of non-reducing saccharide by providing a novel non-reducing saccharide  
5 composed of glucose as constituents and to provide a novel enzyme forming the non-reducing saccharide, a method and process for producing the same, a DNA encoding the enzyme, a recombinant DNA and transformant comprising the DNA, a composition comprising the non-reducing saccharide, and uses thereof. The present invention solves the above object by providing a  
10 novel cyclic saccharide having a structure of  $\text{cyclo}\{\rightarrow 6\}\text{-}\alpha\text{-D-glucopyranosyl-(1}\rightarrow 4\text{)-}\alpha\text{-D-glucopyranosyl-(1}\rightarrow 6\text{)-}\alpha\text{-D-glucopyranosyl-(1}\rightarrow 4\text{)-}\alpha\text{-D-glucopyranosyl-(1}\rightarrow \text{)}$ , cyclic maltosylmaltose, novel cyclic maltosylmaltose-forming enzyme, a method and process for producing the same, a DNA encoding the enzyme, a recombinant DNA and transformant  
15 comprising the DNA, a composition comprising the cyclic maltosylmaltose or a saccharide composition comprising the same, and uses thereof.